

REMARKS

The application has not been amended.

Claims 1-15 and 26-30 are currently pending in the application, of which claims 2, 3, 6-10 and 15 are withdrawn. Reconsideration and allowance of all of the claims is respectfully requested in view of the foregoing amendments and the following remarks.

In regard to Rejection of Claims 1, 4, 5, 11, 12 and 26-30 Under 35 USC § 102(b)

The Examiner has rejected claims 1, 4, 5, 11, 12 and 26-30 under 35 U.S.C. § 102(b), as being anticipated by Matsudaira, U.S. Patent No. 3,288,992. The Applicants disagree.

The Examiner's attention is directed to the following feature of claims 1 and 26:

wherein the piston blocks at least one of the inlet and outlet openings to prevent fluid flow through the inner chamber when the piston is in its roll-over position

The Applicants submit that at least the above feature of claims 1 and 26 is not taught by Matsudaira.

Referring to paragraph 5 of the rejection, describing Matsudaira, the Examiner states that

the piston blocks at least one of the inlet and outlet openings to prevent fluid flow through the inner chamber when the piston is in its rollover position (Col. 6, Lns. 48-53, as the glass breaks the outlet is blocked in as much the same manner as is applicant's) and as seen in Figure 5.

The Examiner is incorrect in his understanding of Matsudaira.

Referring to lines 48-53 of column 6 of Matsudaira,

[i]n the embodiment shown in FIG. 5, the valve plate 74 may be replaced by a breakable plate, for example, of glass, tightly secured on the seat 71. In such a case, the breakable plate will be broken by the projection 69 upon the upward movement of the weight 66, thereby venting the pressurized air.

Referring now to lines 40-43 of column 1 of Matsudaira,

[a] principal object of this invention is to provide a safety device which will automatically vent a brake pipe of the braking system for the railway train to brake the latter when one or more railway cars of the train are derailed.

It is apparent that, when the weight 66 of Matsudaira is in an upward position, while the safety device of Matsudaira is in the upright position, the pressurized air within the brake pipe of Matsudaira is vented. This venting is essential to the function of Matsudaira, as it provides the emergency braking function that is the principal object of Matsudaira.

Referring now to lines 23-32 of column 6 of Matsudaira,

[o]nce the weight 66 leaves the bottom of the chamber 64 through even a small distance, the pressurized air within the channel 65 will flow into the chamber 64 below the weight 66 and push the latter upwardly because the surface area of the weight acted upon by the pressurized air from the channel 65 is thereby increased, so that the upward force due to the pressurized air from the channel 65 overcomes the gravitational force upon the weight and the force of the spring 67.

It is apparent that, when the weight 66 of Matsudaira leaves the bottom of the chamber 64, for example to break the glass 74, the force exerted on the weight 66 by the pressurized air in the channel 65 overcomes both the gravitational force and the force of the spring 67 acting upon the weight. As such, the weight 66 will be urged upward and maintained in an upward position for as long as a high pressure continues to exist in the channel 65. Because both gravity and the force of the spring 67 are overcome, the weight 66 will be urged upward to its greatest possible extent. This is true particularly in the case of a very high pressure in the channel 65, and this is the situation in which Matsudaira teaches venting the pressurized air within the brake pipe to provide the emergency braking function. Thus, Matsudaira teaches venting the pressurized air within the brake pipe when the weight 66 is in an upward position, while the safety device of Matsudaira is in the upright position.

Referring now to lines 33-38 of column 6 of Matsudaira,

[t]his upward movement of the weight causes the projection 69 thereof to lift the valve plate 74 so as to allow the pressurized air within the brake pipe to be vented into the atmosphere

through the chambers 60 and 73, the channel 70, the chamber 61 and the port 62. Thus, the braking operation will be effected.

It is apparent that the pressurized air within the brake pipe of Matsudaira is vented by passing through the chambers 60 and 73, the channel 70, the chamber 61 and the port 62 to the atmosphere. As such, when the pressure within the brake pipe of Matsudaira is vented while the weight 66 is in the upward position, the weight 66 permits fluid flow between the port 62 and the channel 70.

If the apparatus of Matsudaira were inverted, its physical structure would remain unchanged. Thus, if the weight 66 of Matsudaira were to overcome the force of the spring 67, it would still permit venting of the pressurized air in the same way as it would when the force of the spring 67 is overcome while in the upright position, through the chambers 60 and 73, the channel 70, the chamber 61 and the port 62 to the atmosphere.

Therefore, Matsudaira does not teach a piston blocking at least one of the inlet and outlet openings to prevent fluid flow through the inner chamber when the piston is in its roll-over position. Matsudaira teaches the opposite of preventing fluid flow, i.e. permitting fluid flow through the inner chamber, when the piston is in its roll-over position.

Therefore, at least one feature of claims 1 and 26 as amended is not taught by Matsudaira, and the Examiner is requested to withdraw his rejection of claim 1 and claims 4, 5, 11 and 12 depending therefrom, as well as claim 26 and claims 27-30 depending therefrom.

In regard to Rejection of Claim 13 Under 35 USC § 103(a)

The Examiner has rejected claim 13 under 35 U.S.C. § 103(a), as being unpatentable over Matsudaira. The Applicants disagree.

The Examiner's attention is directed to the following feature of claim 1:

wherein the piston blocks at least one of the inlet and outlet openings to prevent fluid flow through the inner chamber when the piston is in its roll-over position

As discussed above with respect to claims 1, 4, 5, 11, 12 and 26-30, at least the above feature of claim 1 is not taught by Matsudaira.

This deficiency in Matsudaira is not remedied by the Examiner's assertion that it

would have been obvious to one of ordinary skill in the art at the time of invention to employ the upper portion of the piston having a frusto-conical surface from figure 2 into figure 5 of Matsudaira et al. in order to break the plate and open the valve (Col. 2, Lns. 53-58).

The Applicants do not admit the correctness of the Examiner's assertion and reserve the right to argue thereagainst in the future.

In addition, the Applicants wish to point out that the upper portion of the projection 12 in Figure 2 of Matsudaira is described as having a "sharpened end" in the passage cited by the Examiner, and as such it is not frusto-conical in shape. However, the Applicants do not rely on this argument as they believe the allowability of claim 13 is established based on the absence of a teaching of the above feature of claim 1, from which claim 13 depends, in the prior art.

Therefore, at least one feature of claim 1 as amended is not taught by Matsudaira or the Examiner's assertion, alone or in combination, without admitting the correctness of the Examiner's assertion. As such, the Examiner is requested to withdraw his rejection of claim 13 depending therefrom.

Request for rejoinder of withdrawn claims

It is requested that claims 2, 3, 6-10, 14 and 15, previously withdrawn, be rejoined and allowed, given their dependence from claim 1.

In view of the above remarks, the Applicants respectfully submit that all of the currently pending claims are allowable and that the entire application is in condition for allowance.

Should the Examiner believe that anything further is desirable to place the application in a better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

At the time of filing of the present response, no fees were believed to be necessary. In case any fee should be necessary, the Office is hereby authorized to debit Deposit Account number 502977.

Respectfully submitted,

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